

# **NORTHEAST CORRIDOR TRAIN DISPATCHER'S MANUAL OF INSTRUCTIONS**

## **INTRODUCTION**

This manual contains instructions that supplement the NORAC Operating Rules, Timetable Special Instructions, and Air Brake and Train Handling Instructions. Should an Operating Rule, Special Instruction, or Air Brake and Train Handling Instruction change in a way that conflicts with an instruction in this manual, the Operating Rule, Special Instruction, or Air Brake and Train Handling Instruction will govern. Such discrepancies should be promptly brought to the attention of the Rules Department, so that they can be corrected in the next revision of this manual.

The manual is divided into two sections – a System Section and a Division Section. The System Section contains instructions that apply on all Northeast Corridor divisions. The Division Section contains instructions that apply only on the referenced Division Dispatching Office, NED-E (Boston), NED-W (New York), or MAD.

Use of the male gender throughout this manual is for convenience and clarity only. All instructions apply equally to male and female personnel. The following titles and terms have been shortened to reflect common usage:

- "Dispatcher" refers to the Train Dispatcher.
- "Assistant Chief" refers to the Assistant Chief Train Dispatcher.
- "Chief" refers to the Chief Train Dispatcher or Manager of Operations.
- "Operator" refers to the Block Operator or Train Director.
- "Train Sheet" refers to the Train Dispatcher's Record of Train Movement.

All Dispatchers and Assistant Chiefs will be provided with a copy of this manual. They must maintain their copy and have it with them while on duty.



**SYSTEM SECTION OF  
TRAIN DISPATCHER'S MANUAL**

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## SYSTEM SECTION

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# **SYSTEM SECTION**

## **1.0 GENERAL INSTRUCTIONS**

### **1.1 ASSUMING DUTY**

Before assuming duty, Dispatchers must read and familiarize themselves with any new notices and directives in effect on their section.

### **1.2 PROMOTION TO THE POSITION OF DISPATCHER**

All Dispatcher trainees must successfully complete the courses outlined in the current edition of the "Amtrak Train Dispatcher Training Program".

### **1.3 FEDERALLY REQUIRED TRAIN SHEET INFORMATION**

The Code of Federal Regulations (49 CFR Part 228) requires that the following information be included on each dispatching district's Train Sheet:

1. Identification of timetable in effect.
2. Location and date.
3. Identification of Dispatchers and their times on duty.
4. Weather conditions at 6-hour intervals.
5. Identification of Engineers and Conductors, and their times on duty. When it is not practicable to write in the names of train crews, arrange to staple a copy of the lists of Engineers and Conductors on various trains to the Train Sheet on each section.
6. Identification of trains and engines.
7. Station names and office designations.
8. Distances between stations.
10. Direction of movement and the time each train passes all reporting stations.
11. Arrival and departure times of trains at all reporting stations.
12. Unusual events affecting movement of trains and identification of trains affected.

Dispatchers must ensure that this information is kept current on their Train Sheet, unless the information is automatically generated by the CETC computer.

#### **1.4 SPEED RESTRICTIONS ISSUED ON ANOTHER DISPATCHING SECTION: DISPATCHER'S TRANSFER RECORD**

Dispatchers must note in their transfer record any speed restrictions affecting territory under their jurisdiction that are covered, in whole or in part, by a Form D or TSRB addition issued on another dispatching section. This record must be made in writing in the Form D booklet on the same page as the normal transfer record, and must include the information shown in the example below:

*Speed Restrictions Covered by Form D or TSRB on other sections: Form D No. A202 / 30 MPH No. 3 Trk between MP 4.2 and MP 4.6.*

#### **1.5 RELAYING INFORMATION TO FOREIGN RAILROADS/DIVISIONS**

Information regarding fouled or cleared tracks, equipment problems, necessity for AC or DC power removal, or any other pertinent information which could affect the operation of connecting railroads or divisions must be relayed in a timely fashion to the appropriate individuals.

#### **1.6 PRIORITY OF TRAINS**

Except in emergencies, or when otherwise directed by a supervisor, trains must be dispatched in the priority listed below:

1. Amtrak revenue passenger trains
2. Commuter revenue passenger trains
3. Freight revenue trains
4. Scheduled deadhead passenger equipment moves
5. Amtrak non-revenue trains
6. Commuter non-revenue trains
7. Freight non-revenue trains

Trains must be dispatched in the most efficient manner possible without compromising safety. Dispatchers must remain aware of all factors which may affect the movement of trains, including: weather, track outages, speed restrictions on track and/or equipment, hours of service, etc.

Additionally, Dispatchers must anticipate situations requiring the issuance of Form D's, and always bear in mind that matters clear to them may not be fully understood by others. Dispatchers must be clear in their instructions so that there is no possibility of a misunderstanding.

## **1.7 PASSENGERS CARRIED BY THEIR STATION STOP**

Whenever there is a report of passengers carried by their station stop, arrange to notify the appropriate Transportation Supervisor on duty closest to the next available location where the crew may be interviewed. Log the incident on the Unusual Occurrence Report, including delay to passengers, and notify the Consolidated National Operations Center.

## **1.8 PASSENGER TRAINS MAKING UNSCHEDULED SECOND STATION STOPS**

When passenger trains incur delay due to an unscheduled **second** station stop, the Assistant Chief will notify a Transportation Supervisor in the area in a timely manner. The Transportation Supervisor will investigate the necessity for the second stop with the crew involved.

## **1.9 UNSCHEDULED STOP AUTHORIZATION FOR PASSENGER TRAINS**

Whenever a passenger train is authorized to make an unscheduled stop include the reason for the stop on the Train Sheet or CETC "Unusual Occurrences Record" (UOR).

## **1.10 ORDERING CREWS FOR TEST TRAINS OR SHOP TRAINS**

When ordering a crew for "Test Train" or "Shop Train" service, an Assistant Conductor is not required unless:

1. Yard work must be performed, or
2. A shop train contains a wheel car or freight-type car.

## **1.11 PREPARATION OF "HOURS OF SERVICE VIOLATION REPORT"**

All "Hours of Service" violations must be reported to the Assistant Chief Dispatcher, who must record all required information on the daily "Hours of Service" form. This form must be completed daily and distributed as required, whether violations have occurred or not. If no violations have occurred, simply fill in "None Reported." A space is provided for the initials of the Assistant Chief who completes the information. If a violation does occur the following must be documented:

1. To whom and when the employee gave notice that he might not have time to complete his assignment within the 12 hour limit.
2. Any measures which were taken to avoid the violation, and the reason(s) why these measures were not successful.
3. If no measures were taken to avoid the violation, the reason(s) why.
4. If the employee was ordered to violate, by whom and for what reason(s).

There is a space provided for on the form to record the employee's "Time Off Duty Until Next Service Period." Leave this space blank. The department involved will provide this information to the Assignment Clerk for final completion of the form.

Use a separate form for each "Station" and for each "Train." Indicate the train or engine number if a T&E crew is involved. Indicate the office or station name if a Dispatcher or Operator is involved. Check if it is a 9-hour office or a 12-hour office. The name of the employee preparing the report should be entered where "Reporting Officer" is indicated. Explain the reason or cause, and who authorized the violation.

#### **1.12 HOURS OF SERVICE LAW: DISPATCHERS**

Dispatchers must not relieve each other so early as to artificially create a violation of the Hours of Service Act. Relief should not be permitted more than 30 minutes in advance of assignment. Dispatchers must not pre-arrange to report for duty late. This too could create a violation of the Hours of Service Law.

#### **1.13 HOURS OF SERVICE RECORDS: DISPATCHERS**

To comply with Federal Regulations, ensure that the following information is added on the transfer record:

1. Number of consecutive hours off duty prior to going on duty.
2. Beginning and ending times for hours of duty.
3. Total time on duty

#### **1.14 HOURS OF SERVICE LAW: TRAIN CREWS**

Dispatchers must notify the Assistant Chief of any trains coming on the Division 30 or more minutes late, and check for the time the crew will be on duty 12 hours. Arrangements for any necessary recrews must be made far enough in advance to avoid an Hours of Service violation.

#### **1.15 REPORTING UNUSUAL OCCURRENCES**

When a service disruption occurs, or a train loses time due to an unusual occurrence, the Dispatcher must promptly begin an incident write-up (log item) and inform the Assistant Chief. The Assistant Chief must promptly notify the Consolidated National Operations Center at **ATS 734-2105**.

The C&S Trouble Desk or appropriate Engineering Department representative must be promptly notified of all reports of switch or signal failures, TOL's, broken rails or other track defects.

The Power Director and C&S Trouble Desk must be promptly notified of all reports of catenary or 3<sup>rd</sup> rail problems.

The C&S Trouble Desk or Power Director, as appropriate, will be responsible for dispatching the required personnel and notifying MW, C&S or ET Supervision.

If the applicable department does not provide a cause for the failure within a reasonable time after the condition has been cleared, the Assistant Chief must pursue a cause for the failure.

All causes must be included in the log item.

The above failures must also be reported to the Transportation Supervisor on duty.

### **1.16 REPORTING RULE VIOLATIONS**

The Dispatcher must promptly notify the Assistant Chief of all alleged Operating Rule, Special Instruction or Air Brake and Train Handling Instructions violations. The Assistant Chief must promptly notify appropriate department supervision, who must arrange to obtain statements from those involved in the alleged violation as soon as possible.

The following actions must be taken following the report of an alleged violation that is serious enough to warrant the D&A testing and/or removal from service of the involved employee(s) regardless of whether the violation impacts mainline operations:

1. Promptly notify the Consolidated National Operations Center (CNOC) at ATS 734-2105.
2. Make a notation on the Unusual Occurrence page of the Division Log, indicating the name of the CNOC representative contacted.
3. Within 24 hours of the incident, complete a "Incident Report" form NRPC 3212, and fax a copy to the CNOC at ATS 734-2399 and System Operating Practices at ATS 739-2419. (Form 3212 is available on the Amtrak Intranet.)
4. If the violation involves a Dispatcher who cannot be immediately relieved, the Assistant Chief or Supervisor must stay with the Dispatcher to monitor all activities until the relief Dispatcher arrives.

### **1.17 TRAIN DISPATCHERS RESPONSIBILITY WHEN POSTING DISPATCHERS**

Dispatchers are responsible for the proper supervision of posting dispatchers (Posters) who are assigned to qualify with them during their tour of duty. Dispatchers **must not** leave Posters alone without giving them specific instructions on the activities they can and cannot perform while the qualified Dispatcher is not present. Dispatchers should base such limitations on their perception of the Poster's level of experience and competence. As an example: Dispatcher's qualifying on their first section should not be permitted to issue written instructions, grant foul time, or authorize the removal of blocking devices unless the qualified Dispatcher is there to directly supervise the activity.

### **1.18 FRA REQUIREMENT FOR RESTRICTIONS TO BE IN WRITING**

FRA radio regulations require that mandatory directives given by radio be issued in writing. The FRA defines a mandatory directive as any movement authority or speed restriction that affects a railroad operation. Any instructions issued by radio for a train or track car to operate at a specific speed, must therefore be issued by Form D or TSRB addition.

## **1.19 TRAIN DISPATCHER COMMUNICATION TO TRAINS – TRAIN DELAY UPDATES**

When a train is stopped or is operating at less than the maximum authorized speed, the on-board train crew is required to make announcements to passengers regarding the delay. They must update this information every 15 minutes in accordance with Service Standards Manual instructions.

### ***In order to assist train crews with this requirement:***

Train Dispatchers controlling territory where trains are being delayed for reasons not related to a specific train must provide train crews with adequate information regarding the reasons for and / or expected duration of the delay. They must update this information every 15 minutes. The Dispatcher may make an open radio broadcast when many trains are involved and circumstances make it difficult or impossible to update each train individually.

## 2.0 FREIGHT OPERATION

### 2.1 FREIGHT TRAIN LIMITS IN COLD WEATHER

The following freight train limits are in effect during periods of extreme cold:

<u>Temperature</u>	<u>Train Length</u> (in feet)	<u>Approximate Cars</u> (base on 50 foot length)
15° to 19°	7500	150
10° to 14°	7000	140
5° to 9°	6500	130
0° to 4°	6000	120
-1° to -5°	5500	110
-6° to -10°	5000	100
-11° to -15°	4500	90
-16° to -25°	4000	80

### 2.2 FREIGHT TRAINS REPORTED WITH OPEN DOORS

In the application of NORAC Rule 72, freight trains reported with open doors must be stopped clear of interlockings. If the crew cannot close the doors, the train may be permitted to proceed, conditions permitting, to the next point where Car Inspectors are present. If the doors still cannot be closed, the car(s) must be set off. If an open door fouls an adjacent track, trains must be held clear of that track.

### **3.0 RULES APPLICATIONS**

#### **3.1 AUTHORIZING REVERSE MOVEMENTS WITHIN INTERLOCKINGS**

In the application of NORAC Rule 612, the Dispatcher or Operator must give permission for each individual reverse movement within the limits of an interlocking, before such movement is made.

Before granting permission to make a reverse move within the limits of an interlocking, advise the Engineer that permission is for one (1) move only, and that additional reverse moves are not to be made unless permission is requested and obtained.

#### **3.2 ISSUING FORM D's INVOLVING INTERMEDIATE INTERLOCKINGS**

When Form D Lines 2 & 3 or Line 4 are issued to move equipment, or remove a track from service, and an intermediate interlocking(s) is involved, in addition to signal BDA's or track BDA's, switches at the intermediate interlocking must be blocked in the required position to protect the movement or out-of-service track.

When Lines 2 & 3 are issued to move equipment in one direction, and Line 3 includes authority for the track equipment to pass a Stop Signal at intermediate interlocking(s), switches blocked at the intermediate interlocking(s) must remain blocked until the track car is known to be clear of the intermediate interlocking(s). If the Line 3 does not include authority to pass a Stop Signal, the blocking devices at the intermediate interlocking(s) may be removed to route trains around the affected track provided alternate blocking device protection is applied. In the case of a bi-directional multiple-block Form D, intermediate interlocking switches must not be repositioned ahead or behind the track car until the Form D has been canceled or fulfilled.

Line 3 must NEVER be used to give a track car advance permission to pass a stop signal at a movable bridge.

When Line 4 includes a movable bridge, the bridge must not be opened without permission of the employee named on Line 4. The Dispatcher must ensure that drawtenders are aware of this restriction before issuing the Form D.

#### **3.3 RECEIVING REPORTS OF PASSING TRAINS FROM OPERATORS**

In the application of Rule 922, Dispatchers must ensure that Operators under their jurisdiction promptly report the passage of trains by their reporting locations. Dispatchers must promptly enter reported information on the Train Sheet.



### **3.4 OCCUPYING RULE 261 TRACK AT A HAND-OPERATED SWITCH: T.O.L.**

Dispatchers must take the following actions before authorizing a train to occupy the main track at a hand-operated switch where a T.O.L. has locked the established direction of traffic in the direction opposite the intended move:

1. The Dispatcher must ensure that blocking device protection is provided at location(s) where opposing movement(s) can be held.
2. The track on which movement is to be made must be known to be clear of opposing movements.

### **3.5 MISROUTED TRAINS: BACK UP AT INTERLOCKINGS**

Dispatchers will be governed by the following procedures when it is necessary to authorize a misrouted train to back up clear of an interlocking onto a track between interlockings that is already occupied by an opposing train:

1. Instruct the opposing train to stop and report its head end location.
2. Determine if there is sufficient room between the opposing train and the interlocking for the misrouted train to clear the interlocking. If more space is needed, instruct the opposing train to flag back **within the block** the extra distance required. If necessary for the opposing train to re-enter a block, Rule 502 will apply.
3. Once it is determined there is sufficient space, the opposing train must be tied down as follows:
  - a. If the misrouted train has completely cleared the block it must back into, the opposing train must be instructed by Form D line 13 to remain where it is standing.
  - b. If the rear portion of the misrouted train is in still occupying the block it must back into, the opposing train may be verbally instructed to remain where it is standing.
4. Before authorizing the misrouted train to begin its reverse movement, instruct the crew to have a crew member precede the movement until the train is clear of interlocking limits.
5. Once flagging instructions have been conveyed, interlocking signal or Rule 241 permission may be given if movement to pass an interlocking signal is required.
6. Once the misrouted train has cleared the interlocking and stopped behind the home signal, cancel the Form D or verbal tie down instructions to the opposing train.

### 3.6 WAYSIDE HBD ACTUATION ON EQUIPMENT WITH OBHBD SYSTEM

In the application of SI 72-S9, when a train equipped with an OBHBD actuates a wayside Hot Box Detector that requires the train to be stopped and an inspection performed, the following will apply:

**No Defects Found:** If the crew reports that the inspection of the OBHBD indicates no defects or system faults, the Dispatcher must confirm this information with the crew and the train may be permitted to proceed at Normal Speed without conducting an external inspection. At locations where the wayside detector is tied in to the signal system, the related Interlocking or Control Point signal may be re-displayed once the inspection results are verified.

**Defect Found:** If the OBHBD indicates any system faults or defects, an external inspection of the journals indicated by the wayside detector must be conducted in accordance with SI 72-S1, S3 and/or S7, in addition to the procedures required by the OBHBD indication.

If the next wayside hot box detector indicates a defect on one of the same cars/locomotives indicated above, it will be considered the second consecutive actuation regardless of the results of the previous inspection. An external inspection of the suspected hot journal must be conducted and requirements of SI 72-S7 will apply.

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## 4.0 FORM D/TSRB PROCEDURES

### 4.1 FORM D BOOKLETS

Form D booklets, when completed, are to be turned over to the Assistant Chief, who will arrange for storage.

### 4.2 PASSENGER EQUIPMENT NOT LISTED IN THE TIMETABLE

When equipment restricted to less than 110 MPH is to be handled in a passenger train, and such equipment is not listed in Timetable Special Instruction 37-S5 and speed and restrictions for the equipment are not listed on a train manifest or PNR (see SI 34-S4), a Form D, Line 13 must be issued to the train indicating the maximum authorized speed.

Example: "Car \_\_\_\_\_ may operate over the Northeast Corridor not exceeding \_\_\_\_\_ MPH."

### 4.3 MULTIPLE ADDRESS FORM D'S

When issuing Form D Lines 2, 4 or 6 with a multiple address, Dispatchers must insure that all receiving Operators copy all addresses.

### 4.4 OPENING TEMPORARY BLOCK STATIONS

Whenever an Operator is assigned to work at hand-operated switches on a main track, Form D line 10 must be issued to open the location as a TBS to approaching trains in **both** directions.

When practical, the hours that a TBS is scheduled to be in service will be published by BO. The BO will require trains approaching the TBS **during the hours that the TBS is scheduled to be in service**, to receive a Form D indicating whether or not the TBS is in service before passing the last interlocking or controlled point prior to the TBS. If the TBS is in service, Form D line 10 must be issued. If the TBS is not in service, Form D line 13 must be issued in the following format: "**TBS at [location] is NOT in service**".

Whenever possible, the Form D must be delivered to approaching trains at the last **interlocking station** prior to the TBS. If this is not possible, it must be delivered before the train passes the last interlocking prior to the TBS, or occupies the main track at a hand-operated switch between the last interlocking and the TBS.

If at the time the TBS is scheduled to go in service, there is an approaching train in the block between the last interlocking and the TBS, the train must be stopped so that the aforementioned Form D can be delivered. Such a stop is not required if the Form D is delivered in advance.

## 4.5 HEAT-RELATED SPEED RESTRICTIONS

Weather and rail temperature monitoring stations are installed at various locations along the Northeast Corridor. When the rail temperature, or in the absence of rail temperature, the ambient air temperature reaches the thresholds in the chart below, the Division Engineer or his representative will impose the listed speed restrictions in the affected area, and any latent speed restrictions necessary to protect recently surfaced or disturbed track.

Temperature Rail / (Air)	Speed Restriction	Additional Restrictions
> 130°F / (98°F)	100 MPH	Plus any latent restrictions
≥ 140°F / (105°F)	80 MPH	Plus any latent restrictions
NOTE: Ambient air temperatures will only be used when rail temperatures are not available.		

Form D's or TSRB additions must be issued to affected Amtrak trains at the following locations: Boston–South Station, Providence, New London, New Haven, New York–Penn Station, Harrisburg, Philadelphia–30th Street Station, Baltimore– Penn Station and Washington–"K" Tower.

Form D's or TSRB additions must be issued to affected commuter and freight trains at the normal Form D delivery locations for those trains.

Trains en route when a heat restriction is imposed will be permitted to continue operating at maximum authorized speed to the next station listed above, where a Form D or TSRB addition must be issued for movement beyond that point.

When necessary to cancel a heat restriction to an Amtrak train between the above listed locations, the Dispatcher will arrange to notify the train in advance that a Form D or TSRB cancellation will be issued at the next scheduled station stop. The Dispatcher will promptly issue the Form D or TSRB cancellation and make every effort to avoid delay to the train.

Heat restrictions issued to commuter and freight trains will not be cancelled en route, except when it is operationally advantageous to do so. Such trains will continue to their final destination with the heat restriction Form D or TSRB addition.

When heat restrictions are imposed, a division log item must be prepared specifying the following information: (1) Rail / (Air) Temperature, (2) Speed(s) imposed, (3) Area Affected, (4) Time Imposed, (5) Time Removed, and (6) Train Delays.

## 4.6 SPEED RESTRICTIONS ON TRACKS SCHEDULED FOR MW WORK

When a Form D or TSRB speed restriction is in effect for a portion of track that is taken out of service for maintenance, the speed restriction must NOT be cancelled.

Before the out-of-service Form D is cancelled to restore the track to service, the Foreman named in the Form D must personally advise the Operator or Dispatcher controlling the out-of-service limits of the maximum allowable speed at which trains may be operated, and then, if necessary, the original Form D or TSRB item must be changed to suit the prevailing conditions.

## 4.7 BARRICADE USED TO DEFINE END OF FORM D LINE 4

When a barricade is to be used to define one or both ends of a Form D line 4, the Dispatcher must know that the barricade(s) is in position before making the Form D effective.

#### 4.8 "80 MPH SLOW BY" SPEED RESTRICTION

When an Undercutter or TLM is working on an out-of-service track, an "80 MPH Slow By" Form D will always be issued to trains operating on tracks immediately adjacent to the **TLM**, but will be issued on tracks immediately adjacent to the **Undercutter** only when requested by the MW employee in charge. When covering this restriction by Form D, issue Line 13 in the following format:

*"Do not exceed 80 MPH on No. \_\_\_\_ track(s) \_\_\_\_ Line between \_\_\_\_ and \_\_\_\_ between the hours of \_\_\_\_ and \_\_\_\_ Speed signs will be displayed Speed restriction applies to head end only"*

Speed signs must be erected by the start time, and must remain in place until the end time. Times given for the speed restriction must start and end on the hour or the half hour, e.g., 7:00 AM to 4:30 PM. The Form D must be canceled at delivery points once the end time for the restriction has been reached.

Because Speed Signs must be placed prior to the Form D's beginning time and not removed until after its ending time, trains may encounter some or all of the signs displayed outside the specified time limits. Crews who encounter this should comply with the signs displayed and report any absent or imperfectly displayed signs to the Dispatcher.

When track work is completed each day, the MW employee in charge must provide the Dispatcher with the limits, times and date for the following work day's 80 MPH speed restriction. On the next work day, the MW employee in charge must confirm this information with the Dispatcher.

#### 4.9 ISSUANCE OF FORM D LINES 2, 3 AND 4

In the application of NORAC Rules 133 and 803, to remove a track from service for maintenance, or to provide for the movement of a track car, Dispatchers must issue (address) Form D Lines 2, 3, and 4 to the Foreman or Track Car Driver, and to all Operators required to protect the track to be occupied. All blocking devices must be applied **before** the Form D is issued.

##### **Exception:**

**CETC Territory:** It is not necessary for Dispatchers working in CETC territory to issue Form D Lines 2, 3, and 4 to each other when arranging to remove a track from service for maintenance, or to provide for the movement of a track car. However, all blocking devices must be applied before the Form D is issued to the Foreman or Track Car Driver.

#### 4.10 CANCELLING ELECTRONICALLY TRANSMITTED FORM D'S

When cancelling an electronically transmitted Form D issued with a blanket address to locations where Operators are not on duty to copy the cancellation information, the Assistant Chief will electronically transmit the cancelled Form D to the designated locations (i.e., T&E Crew Room, Passenger Services, NS, Conrail, SEPTA, etc.), then call each location to verify receipt of the cancelled Form D. The person who confirms receipt of the cancellation will be responsible for removing and destroying copies of the original Form D.

#### 4.11 ERRORS IN INFORMATION ADDED TO PREVIOUSLY ISSUED FORM D'S

If a Dispatcher makes an error in adding information to a previously issued Form D, the Dispatcher must:

1. Correctly recopy the Form D using the *same* Form D number.
2. *Void* the erroneous Form D copy.

If a receiving employee has added erroneous information to his copy of a Form D (regardless of whether it was the Dispatcher's error or the employee's), the Dispatcher must direct the receiving employee to:

1. Draw an "X" through his copy of the erroneous Form D.
2. Recopy the entire Form D correctly.
3. Repeat the recopied Form D to the Dispatcher, including the added information.

#### 4.12 PROTECTION OF TEMPORARY SPEED RESTRICTIONS

- A. When a temporary speed restriction is placed in effect, Dispatchers must ensure that all trains that could be routed to the affected track(s) are notified by Form D or TSRB addition.

EXCEPTION: Blocking devices may be used to protect a temporary speed restriction, instead of delivering a Form D or TSRB addition to a train, when (1) the train has already departed its initial terminal, or (2) the track affected by the speed restriction is out-of-service.

- B. Upon receipt of the Form D Line 1, the Train Movement Office responsible for its delivery will inform the originating Train Movement Office of the number of the **first train** to which the Form D will be delivered. **The Dispatcher on whose section the restriction is in effect will maintain blocking protection until that train, and the next four in timetable order, have verified possession of the Form D with that Train Dispatcher.**

If the first train reported to have been delivered the Form D overtakes another train on the same division train movement territory before entering the division train movement territory which issued the Form D, the delivering Train Movement Office will be responsible to inform the originating Train Movement Office of that fact, or to furnish the delayed train with either a copy of the Form D or a TSRB addition.

#### 4.13 CURRENT TSRB CANNOT BE DELIVERED AT INITIAL TERMINAL

When the current TSRB cannot be delivered to a train at its initial terminal, the Dispatcher must either:

1. Issue a Form D to the train to cover any temporary speed restrictions in effect on any in-service track over which the train could be routed,

or

2. Instruct the crew to use the TSRB from the previous day, if available, then add and/or cancel restrictions on the TSRB to make it current.

If there are no temporary speed restrictions in effect between the train's initial terminal and the next location where the current TSRB can be delivered to the train, the train may be permitted to operate to that location without the aforementioned Form D or TSRB update. The Dispatcher must apply blocking devices at the location where the TSRB will be delivered, and must keep them applied until the Engineer acknowledges receipt of the TSRB.

#### **4.14 FORM D USED TO CANCEL PART OF TSRB**

When a Form D is used to cancel part of a TSRB, the Form D must include the effective date of the TSRB.

*Example: That part of Mid-Atlantic Division TSRB effective 10/1/06 referring to PW restriction on No. 3 track MP 119 to MP 120 of 30 MPH is cancelled.*

#### **4.15 CLASS 8 TRACK UNUSED FOR 8 HOURS: 100 MPH SPEED RESTRICTION**

If no train traffic operates for a period of 8 hours or more through any area where the maximum authorized speed on any track is greater than 125 MPH (Class 8 track), the speed of the first train operated in either direction on any Class 8 track (greater than 125 MPH) through that area must be restricted to 100 MPH. Subsequent trains may be permitted to operate at Normal Speed on all Class 8 tracks through the affected area. To avoid the necessity of restricting such movements, all attempts should be made to operate a train at least every 8 hours through areas where track speed exceeds 125 MPH on any track.

**Note:** *This restriction is required by Federal regulation 49 CFR 213.365(f).*

#### **4.16 DELIVERY OF FORM D'S AND TSRB CHANGES AT DESIGNATED LOCATIONS**

This instruction supplements SI 165-S1, which requires crews of trains at designated locations to inquire about Form D's and TSRB changes with designated Dispatchers or Operators prior to departure.

##### **Responsibilities of Issuing Dispatcher**

Dispatchers must take the following actions when issuing a Form D or TSRB change that will be delivered by another Dispatcher or Operator in accordance with SI 165-S1:

1. Apply blocking device protection to prevent trains without the Form D or TSRB change from entering the restricted track area. These blocking devices must remain applied until the Dispatcher has determined that all trains approaching the restriction have a copy of the Form D or TSRB change, or will receive the Form D or TSRB change before arriving at the entrance to the restriction.
2. Provide the delivering Dispatcher and/or Operator with a copy of the Form D or TSRB change.



3. Obtain the identity of the first train to receive the Form D or TSRB change from the delivering Dispatcher and/or Operator, and record this information in the Form D book.

### **Responsibilities of Delivering Dispatcher or Operator**

Dispatchers and Operators named in SI 165-S1 must take the following actions when they receive a Form D or TSRB change:

1. Advise the issuing Dispatcher of the first train that will receive the Form D or TSRB change.
2. Ensure that crews receive all applicable Form D's and TSRB changes when they inquire about instructions.
3. Make a record of which trains have received each Form D and TSRB change.
4. Inform the issuing Dispatcher of the last train to receive the Form D when a Form D is cancelled.
5. Take the following actions when necessary to deliver a Form D or TSRB change to a train **after** the crew has inquired about instructions, but prior to departure:
  - a. Apply or order the application of blocking devices to prevent the train from leaving the designated location or entering Amtrak dispatched territory.
  - b. Deliver the Form D or TSRB change to the train.
  - c. Confirm that the **Engineer** has received a copy of the Form D or TSRB change. This confirmation must be received before blocking devices referenced in item "a" above are removed.

### **4.17 SUBSTITUTING DCS RULES FOR ABS RULES**

In the event of a signal system failure, DCS rules may be substituted for ABS rules in accordance with the procedures outlined in the Division section of this manual, *after at least one train has operated through the area* to determine that the track is not obstructed.

## **5.0 CETC OPERATIONS**

### **5.1 CETC BLOCKING - FOREIGN RAILROADS AND DIVISIONS**

When blocking device protection is required from an employee of another division or railroad, and the dispatcher will not be receiving an office indication that such blocking devices are applied, the dispatcher must call the affected operator or dispatcher, request the appropriate application of blocking, and then record the track number, location, direction, time that the blocking is applied or removed, and the individual's name.

Examples of record:

*Block applied No. 3 trk West @ Morris - 10pm - Smith*

*Block removed No. 3 trk West @ Morris - 5am - Smith*

### **5.2 CETC BLOCKING**

Form D Line 13 must be issued to hold affected trains when CETC blocking is required, but not possible, because of a failure of the CETC system. For example: Before Rule 241 is authorized, Form D line 13 must be issued to opposing trains to advise them not to operate on the affected track until the train receiving Rule 241 has cleared the block, e.g. "Do not operate on No. 3 track between Davis and Ragan". Form D line 13 must be delivered to opposing trains before they pass the last interlocking before the holding point.

### **5.3 COMPUTER MALFUNCTION**

When it is observed that CETC computer functions are becoming increasingly sluggish, the Dispatcher must fleet signals wherever possible and practicable, and notify the Assistant Chief and

CETC Specialist of the slowdown as soon as possible.

### **5.4 SIGNAL FLIPS — CETC**

Prior to authorizing a CETC signal flip:

- a. To avoid having signals go into the slow release mode: Fleet or place in stop position all interlocking and/or controlled point signals within the limits of the intended flip.
- b. Ensure that there are no trains in the affected area, and
- c. Allow enough time to clear the TOL's that may appear. TOL's resulting from a signal flip may be eliminated by displaying signal(s) away from the location of the TOL.

### **5.5 CETC HOT BOX ACTUATIONS**

#### **1. Emergency Alarms**

CETC hot box detectors are equipped to provide an emergency level alarm, which will cause the related signal in the field to display Stop. Where hot box detectors do not have a related signal a "hot box icon" will appear on the display unit, but no signal will drop. In the event of an emergency level alarm actuation, the train involved must be stopped, and an examination of the journal must be made in compliance with SI 72-S3 or SI 72-S9.

In the event the same car of a train produces an emergency level alarm at 2 consecutive wayside servo hot box detectors, and no hot bearing or other defect which may have caused the alarm (i.e., sticking brakes) is found, train movement is governed by SI 72-S7.

Hot box “hot axle” alarms (ABS) are prefaced with the word “EMERGENCY”.

EX:	HOT BOX	TRAIN	CAR	AXLE	LOC	TRK	RAIL	ABS	TIME
	EMERGENCY	TEST	?	006	123.3	2	WN	190F	07:22A

## 2. Warning Alarms

CETC hot box detectors are also equipped to provide a warning level alarm. Warning level alarms will **not** cause signals in the field to display a Stop indication. The Dispatcher will take no action in response to a **single** warning alarm. In the event of **two** warning alarms in succession on the same axle and wheel, the train must be instructed to stop, and an examination made in compliance with SI 72-S3. When a train activates a warning level alarm at the last Hot Box Detector on a dispatching section, the Dispatcher must relay alarm information to the next CETC Dispatcher.

Hot box “differential” alarms (DIF) are prefaced with the word “WARNING”.

EX:	HOT BOX	TRAIN	CAR	AXLE	LOC	TRK	RAIL	ABS	TIME
	WARNING	TEST	?	006	123.3	2	WN	190F	07:22A

## 3. Non-consecutive Multiple Warning Alarms

When the same car of a train actuates **multiple warning alarms which are not consecutive**, each multiple warning alarm must be **regarded as though it were an emergency alarm**. The crew must be advised that they have actuated the hot box detector, and instructed to stop and inspect the affected car(s). Do not confuse the crew with information regarding warning alarms. If no defects are found, the train may operate at Normal Speed. Each connecting dispatching desk must relay the warning alarm information to the next Dispatcher until the train reaches its destination.

## 4. Consecutive Multiple Warning Alarms

When the same car of a train actuates a **third** consecutive warning alarm, the third warning alarm must be **regarded as though it were a second consecutive emergency level alarm**. The crew must be advised that they have actuated a second consecutive hot box detector, and instructed to operate in accordance with SI 72-S7.

## 5. Warning Alarm Immediately After an Emergency Alarm

When the same car of a train has a warning alarm immediately after an emergency alarm, the warning alarm must be regarded as though it were a second consecutive emergency level alarm. The crew must be advised that they have actuated a second consecutive hot box detector, and instructed to stop and inspect the affected cars. If no defects are found, the crew must be instructed to operate in accordance with SI 72-S7.

## 6. Hot Box Alarm Audible On/Off

When hot box alarms are sent to a Dispatcher’s console that has the audible “off”, the “audible off” state of the console alarms will become audible and will remain in that state until the Dispatcher issues the audible “off” command.

## 6.0 C&S OPERATION

### 6.1 FALSE PROCEED FIXED SIGNAL ASPECTS

***A "false proceed" fixed signal aspect is defined as a fixed signal aspect that fails to provide proper protection for an occupied block, or allows a train to approach the next fixed signal at a speed greater than what is required at that signal.***

Examples of false proceed fixed signal aspects:

- Any fixed signal aspect that is more favorable than Stop Signal, Stop and Proceed, or Restricting when the block ahead is occupied.
- Clear on a fixed signal prior to a fixed signal that requires Limited Speed, Medium Speed or Slow Speed at that signal (e.g., Limited Clear, Medium Clear, Medium Approach, Slow Approach, Slow Clear).
- Any signal that is more favorable than Approach, when the next signal is a Stop Signal, Stop and Proceed, or Restricting Signal.

NOTE: The signal is not a false proceed if the Stop Signal, Stop and Proceed or Restricting signal was caused by a TOL that occurred after the train passed the previous signal.

Dispatchers must immediately take the following actions whenever they receive a report of an alleged "false proceed" fixed signal aspect.

1. If the false proceed aspect was displayed on an ABS signal, issue a Form D line 13 to all affected trains in the following format:

*"ABS signal 12.5 on Track 2 must be regarded as a Stop and Proceed signal regardless of aspect displayed."*

NOTE: If the ABS signal does not have a number plate, the line 13 must specify the location and must instruct trains to regard the signal as a "Stop Signal". Verbal permission in accordance with Rule 241 must be given to authorize trains to pass the signal.

2. If the false proceed aspect was displayed on an interlocking or CP signal, restore the signal to Stop position, and place a blocking device on the signal control mechanism. Verbal permission in accordance with Rule 241 must be given to authorize trains to pass the signal.

NOTE: If the signal aspect cannot be restored to Stop position, issue a Form D line 13 to all affected trains in the following format:

*"Interlocking signal governing eastward movements on Track 2 at Madison must be regarded as a Stop Signal regardless of aspect displayed"*

If there is more than one interlocking or CP signal in the same direction on the affected track, the Form D must clearly state which signal is to be regarded as a Stop Signal.

3. Notify the C&S Trouble Desk, and ensure that the Assistant Division Engineer C&S or his representative is informed.
4. In all cases, the protection must be maintained until its removal has been authorized by qualified C&S supervision.

## 6.2 FALSE PROCEED CAB SIGNAL ASPECTS

***A "false proceed" cab signal aspect is defined as a cab signal aspect that fails to provide proper protection for an occupied block, or allows a train to approach the next fixed signal at a speed greater than what is required at that signal.***

Examples of false proceed cab signal aspects in territory where cab signal system rules are used with fixed signals:

- Any cab signal that is more favorable than Restricting when the block is occupied.
- A Clear cab signal when the train is approaching a fixed signal that requires Limited Speed, Medium Speed or Slow Speed at that signal (e.g., Limited Clear, Medium Clear, Medium Approach, Slow Approach, Slow Clear)
- Any cab signal aspect that is more favorable than Approach, when the next fixed signal is a Stop Signal, Stop and Proceed, or Restricting Signal.

NOTE: The signal is not a false proceed if the Stop Signal, Stop and Proceed or Restricting signal was caused by a TOL that occurred after the train passed the previous signal.

Examples of alleged false proceed aspects in territory where cab signal system rules are used without fixed signals:

- Any cab signal aspect more favorable than Restricting when a train is within 1,000 feet of another train or a fixed signal displaying Stop Signal, Stop and Proceed, or Restricting.
- A Clear cab signal when the train is approaching a fixed signal that requires Limited Speed, Medium Speed or Slow Speed at that signal (e.g., Limited Clear, Medium Clear, Medium Approach, Slow Approach, Slow Clear)

### **6.3 FALSE PROCEED CAB SIGNAL ASPECTS IN CSS TERRITORY WITH FIXED SIGNALS**

When an alleged false proceed cab signal aspect is reported in territory where cab signal system rules are used with fixed signals, the Dispatcher must immediately take the following actions:

1. Instruct the Engineer of the train with the reported false proceed to treat the anomaly as a cab signal failure, in accordance with the "system fault" provision of Rule 555. The train may then be authorized to operate under Rule 556.
2. Notify the C&S Trouble Desk, the Assistant Division Engineer C&S or his representative, and Mechanical Department management of the exact nature of the failure (engine number, location(s), wayside and cab signal aspects, etc.).
3. Issue Form D line 11 to other trains that will use the affected track, suspending cab signal system rules for the block(s) where the reported failure occurred. This Form D must be issued to affected trains until the involved signal circuits have been tested and returned to normal service by the C&S Department.
4. Instruct Transportation management to obtain a written statement from the Engineer at the end of his run, download and analyze the engine's event recorder data, and provide C&S and Mechanical Department management with a copy of the Engineer's statement and the event recorder data for the entire trip. If possible, C&S management should assist Transportation management in their interview of the Engineer at the end of his run.

### **6.4 FALSE PROCEED CAB SIGNAL ASPECTS IN CSS TERRITORY WITHOUT FIXED SIGNALS**

When an alleged false proceed cab signal aspect is reported in territory where cab signal system rules are used without fixed signals (Rule 562 territory), the Dispatcher must immediately take the following actions:

1. Instruct the Engineer of the train with the reported false proceed to treat the anomaly as a cab signal failure, in accordance with the "system fault" provision of Rule 555. The Engineer should be reminded to operate at Restricted Speed in accordance with Rule 562(c), until "Clear to Next Interlocking" signal or Form D line 13 authorizing Rule 563 is received.
2. Notify the C&S Trouble Desk, the Assistant Division Engineer C&S or his representative, and Mechanical Department management of the exact nature of the failure (engine number, location(s), wayside and cab signal aspects, etc.).
3. Issue one of the following two Form D's to all trains that will use the affected track, whichever Form D is more efficient:
  - a. Form D line 6 substituting non-signaled DCS rules for ABS rules on the affected track between the two adjacent interlockings, or
  - b. Form D line 13 instructing all trains to operate at Restricted Speed on the affected track between the two adjacent interlockings.

4. Instruct Transportation management to obtain a written statement from the Engineer at the end of his run, download and analyze the engine's event recorder data, and provide C&S and Mechanical Department management with a copy of the Engineer's statement and the event recorder data for the entire trip. If possible, C&S management should assist Transportation management in their interview of the Engineer at the end of his run.

## **6.5 CAB SIGNAL APPARATUS FAILURE**

In the application of NORAC Rule 554, when Cab Signal System apparatus has failed en route, and the cause has been determined and repairs effected, it will not be necessary to cut off the engine, provided it has been retested and found to be functioning properly.

When these requirements are met, permission to resume operation at normal speed with Cab Signal System apparatus in service may be authorized.

## **6.6 CAB SIGNAL FAILURES: ENGINEER'S CAB SIGNAL DISPLAY**

When an Engineer reports that a particular aspect or all aspects of a cab signal display are dark or indistinguishable for any reason, the Engineer must be instructed to treat the occurrence as a cab signal failure in accordance with the "damage or fault" provision of Rule 555. Rule 556 may be authorized if deemed appropriate.

## **6.7 REPORTING OF FLIPS, FAILURES, NON-CONFORMITIES, ETC.**

All flips, failures, non-conformities and other unusual occurrences of cab signal or ACSES system apparatus must be reported to the C&S and Mechanical Departments for follow-up investigation. The Trouble Desk notification log is to be used for this purpose.

## **6.8 INOPERATIVE HOT BOX DETECTORS**

When a wayside hot box detector fails to operate properly, the Dispatcher must promptly notify the C&S Trouble Desk, and must make every effort to have affected trains routed over the next available in-service hot box detector, including notifying connecting dispatching district when necessary. It is not necessary to have trains inspected by on-ground personnel when operating over an inoperative hot box detector.

## **6.9 HOT BOX DETECTOR ACTUATIONS: GARBLED READINGS**

When a hot box detector tape is garbled or unreadable **after an actuation occurs**, the train must be stopped and all cars with a high or garbled reading examined.

If the train crew discovers a hot journal or broken wheel, arrange to get the reading of that car over the last detector passed.

## **6.10 SIGNAL DROPS TO STOP IN FACE OF TRAIN**

The following procedures will apply when a signal drops to Stop in the face of an approaching train, and the train passes the Stop Signal before it stops:

1. If the train's cab signal conformed to the Stop Signal by displaying Restricting as the train passed the Stop Signal, the train may be instructed to proceed governed by cab signal indication.
2. If the train's cab signal failed to conform to the Stop Signal as the train passed the Stop Signal, the train must be instructed to proceed at Restricted Speed to the next fixed signal.
3. Trouble Desk and Field Transportation Supervision should be notified, and the Engineer interviewed.
4. Operators involved should be thoroughly interviewed.
5. Decision on signal watch should be made by Assistant Division Engineer C&S and the Division Superintendent of Operations.
6. A Log item must be made to document the occurrence.

## **6.11 SWITCH HEATERS**

The Transportation Department, when warranted, will authorize switch heaters that are under the control of an Operator or Dispatcher to be energized. Authorization will be given only when it is precipitating, i.e., snow, sleet or freezing rain. Once turned on, a notation must be made on the Train Sheet and on the transfer record. In addition, the Assistant Chief must make a notation on the "trouble sheet" after notifying the Division Engineer, C&S Trouble Desk, and Power Director, indicating the place, time and reason. It will be the responsibility of the Division Engineer to extinguish the heaters when necessary.

## **6.12 LOSS OF SWITCH INDICATION OR CODE CONTROL**

Dispatchers must take the following actions before authorizing a train to pass a Stop Signal that cannot be displayed due to loss of switch indication or code control, and a C&S or MW employee is not immediately available to secure the switch in the field:

### Facing Point Dual Control Switches

Instruct the crew to place the switch(es) in "hand throw" position, and properly line the switch(es) by hand in accordance with Rule 104k.

This procedure must be followed for each train movement, unless the switch was lined by hand in the desired position by a previous crew, and left in the "hand throw" position.



## Switches Other Than Facing Point Dual Control

Instruct the crew that after they receive permission to pass the Stop Signal, they must stop within 10 feet of each switch in the route (facing or trailing point) to determine that the switch points are against the stock rail and not damaged. Advise the crew that for facing point switches, this inspection must be done at ground level.

Certain switches are equipped with movable point frogs, where the intersection of the two rails includes a movable point that must be lined for the intended route. Dispatchers must know the locations of such switches on their section. When instructing a crew to inspect their route through such appliances, Dispatchers must advise the crew of the movable point frogs and the necessity of inspecting their position.

These procedures must be followed for each train movement.

### **6.13 MOMENTARY SIGNAL POWER LOSS DUE TO ELECTRICAL STORM**

Where there has been a signal power loss due to an electrical storm which results in signals which had been previously displayed going into "Time", attempt to immediately redisplay the signal(s) as soon as power has been restored. It is not necessary to wait for the signal to "Run Down" before attempting to redisplay, once the power has been restored.

### **6.14 TROUBLE DESK NOTIFICATION: MULTIPLE FAILURES**

When there is C&S trouble at more than one location, the Assistant Chief must advise the Trouble Desk of the main priority.

### **6.15 PROCEDURES FOR HANDLING REPORTS OF MALFUNCTION OF AUTOMATIC HIGHWAY CROSSING WARNING DEVICES**

Dispatchers must take the following immediate actions when they receive a report from any source that the automatic highway crossing warning devices at a crossing are not functioning properly:

1. Stop all trains approaching the crossing.
2. Apply blocking device protection to hold trains approaching the crossing, until assured that trains have a Form D Line 12.
3. Issue a Form D Line 12 to trains approaching the crossing in both directions. If no trains are due to operate over the crossing, the Dispatcher may use blocking devices to hold trains clear of the crossing instead of issuing Form D Line 12.
4. Record the following information on the unusual occurrence section of the train sheet:
  1. The name of the person who notified the Dispatcher of the possible malfunction.
  2. The time, date and location of the possible malfunction.
  3. The type of malfunction (e.g., gates did not go down, lights did not flash, gates remained down and lights continued to flash after train cleared circuit, gate broken, etc.).

5. Advise the C&S Trouble Desk of the occurrence and request that a C&S employee be dispatched to the crossing to test operation of the automatic crossing warning devices. The Dispatcher must record on his train sheet the name of the C&S Trouble Desk employee notified.
6. Form D or hold on track must remain in effect until a C&S employee has tested the automatic crossing warning devices, completed any necessary repairs, and notified the Dispatcher that the automatic crossing warning devices are functioning properly.

Although it is beneficial to have C&S and/or Police Department personnel stationed at the crossing to assist in protecting trains entering the crossing, this assistance does not relieve the Dispatcher from issuing Form D Line 12 to approaching trains. Until a C&S employee reports that the automatic warning devices are functioning properly, the Form D must remain in effect, and approaching trains must not enter the crossing until:

1. The train has stopped, AND
2. Protection is being provided by on-ground personnel, AND THEN
3. Must not exceed 15 MPH until the leading end operates through the crossing.

Upon receipt of notification by C&S personnel that the crossing warning devices are functioning properly, the Dispatcher must:

1. Record on the unusual occurrences section of his train sheet the name of the C&S employee who reported that the crossing protection is functioning properly, the time and date of notification, and the repairs that were made, if any.
2. Cancel the Form D or hold on the track.

## **6.16 ESTABLISHING TRAFFIC WITH C&S ASSISTANCE**

Part “d” of Instruction 5 of the AMT-4 is revised as follows:

Before authorizing C&S employees to manually release traffic lever locks or traffic relays, the Dispatcher must ensure that:

1. All signals governing movement to the affected territory are in Stop position and not in time.
2. Blocking devices are applied to prevent the display of signals governing movement in the direction opposite that which traffic will be established.
3. No movements have been authorized to operate in the direction opposite that which traffic will be established.

The blocking devices applied to prevent the display of opposing signals must remain applied until the C&S employee has assured the Dispatcher that opposing signals cannot be displayed.

## **7.0 MW PROCEDURES**

### **7.1 FOREMAN GOING OFF DUTY**

Dispatchers must notify the Assistant Chief when an MW Foreman goes off duty or suspends track work without complying with Special Instruction 133-S3. The Assistant Chief must notify the Division Engineer.

### **7.2 REPAIRING BLOCK JOINTS**

A Form D line 4 must be issued to authorize the repair or replacement of a defective block joint.

### **7.3 REPORT OF BROKEN RAIL OR PULL-APART**

When a report is received of a broken rail or pull-apart, the Dispatcher must immediately apply blocking device protection and must not allow trains to use the affected track until otherwise advised by the MW Department.

EXCEPTION: If no other routes are available, trains may be permitted to operate over the reported broken rail or pull-apart at 4 MPH when given a Form D in the following format:

*Broken rail (or pull-apart) reported at MP 12.3 Do not exceed 10 MPH from MP 12 to track defect **MOVEMENT OVER DEFECT MUST BE DIRECTED BY EMPLOYEE ON GROUND AND MUST NOT EXCEED 4 MPH.***

The Dispatcher must document by log item whether repairs were necessary, or if no exception was taken.

### **7.4 REPORT OF ROUGH SPOT OR DIP IN TRACK**

When a report is received of a rough spot or dip in the track, the Dispatcher must immediately apply blocking device protection and must not allow trains to use the track until otherwise advised by the MW Department.

EXCEPTION: If no other routes are available, trains may be permitted to run over reported rough spot or dip in the track at 10 MPH. This restriction must be issued to affected trains by Form D or TSRB addition.

The dispatcher must document by log item whether repairs were necessary, or if no exception was taken.

### **7.5 WEED SPRAYER: AUTHORIZATION TO WORK**

A Form D Line 4 taking the track out-of-service is not required for the weed sprayer to work (spray) in ABS and DCS territory. It may spray while operating with a Line 2 and 3 movement authority. It may work in an interlocking governed by interlocking rules.

## **7.6 SLIPPERY RAIL DUE TO WEED SPRAYER**

Dispatchers must arrange to provide advance notification to the Engineers of the first three (3) trains that will operate over a track where the weed sprayer has operated. These instructions may be given verbally.

## **7.7 TRACK SURFACING "30 MPH/24 HOUR/12 TRAIN" SPEED RESTRICTIONS**

When an MW employee places a 30 MPH speed restriction on a track after surfacing, the restriction must remain in effect until 24 hours have elapsed and 12 trains have operated over the restriction, unless otherwise specified by the MW employee. After the 24 hour period, an MW employee may remove the restriction only after ensuring that enough tonnage has operated over the track.

The MW Department must be notified promptly once 12 trains have operated over the speed restriction. Such restrictions must not be permitted to remain in effect beyond the 24 hour/12 train limit unless required by the MW Department. Assistant Chiefs must keep track of 24 hour/12 train surfacing speed restrictions, and contact the appropriate Transportation and MW Department Supervisors if the restriction is not removed in a timely fashion.

Dispatchers must dispatch as much tonnage as practicable over these restrictions, including passenger trains, when the delay would be equal to or less than that caused by a diversion. Freight trains must not be diverted around these restrictions without good justification.

## **7.8 TIMELY RECEIPT OF SPEED RESTRICTIONS**

Foremen asking to remove a track from service for maintenance must be advised that any speed restrictions imposed by them on the track involved must be received by 4:00 AM to avoid delay in issuing TSRB's and Form D's to all affected locations. Failure to comply with this directive must be reported to the Chief for handling.

## **7.9 WORK TRAIN CANCELLATION**

Whenever a work train request is cancelled due to the unavailability of engine, cabin, or crew, etc., the Assistant Chief must notify the Trouble Desk so that the MW work force can also be cancelled.

## **7.10 SPERRY RAIL SERVICE: TESTING POLICY**

Sperry Rail Car operation must not be permitted to interfere with passenger train operation.

A Form D Line 4, taking the track out-of-service is not required for the Sperry Rail Car to test in ABS and DCS territory. It may test while operating with a Line 2 and 3 movement authority. It may test in an interlocking governed by interlocking rules.

Once three (3) defects have been discovered, the Sperry Rail Car must cease testing until at least two (2) of the defects have been repaired.

## **7.11 SPEED RESTRICTIONS DERIVED FROM AUTONOMOUS REMOTE MONITORING SYSTEM (ARMS) ON HIGH SPEED TRAINSET'S (HST)**

The Engineering Department has equipped certain HST's with an Autonomous Remote Monitoring System (ARMS), as required by FRA Track Safety Standards (49 CFR 213.333) for train operation above 125 MPH. The ARMS is intended to pinpoint track defects and HST mechanical defects which result in ride quality that is harsh enough to warrant a speed restriction. ARMS does this by measuring carbody and truck accelerations, and transmitting data regarding excessive accelerations to a central computer that is monitored by the Engineering Department.

An ARMS Duty Officer (Engineering Dept.) is automatically paged when an HST acceleration exception is detected by ARMS. The Duty Officer will analyze the ARMS data to determine whether the excessive acceleration was caused by a track or equipment defect. Once the cause is determined, the appropriate Dispatching office(s) will be contacted to either place a track speed restriction in effect, or place a speed restriction on the specific HST equipment involved.

### ***Track Based Speed Restrictions:***

Track speed restrictions that result from an ARMS hit must be issued by TSRB addition or Form D to all affected trains. However, speed restrictions that are 125 MPH or greater need only be issued to HST's.

Track speed restrictions will also be forwarded by the ARMS Duty Officer to the appropriate Assistant Division Engineer, so that the alleged track defect can be inspected, and remedial action taken if necessary. Once the track location involved is cleared for normal operation, the Assistant Division Engineer's office will contact the Division's Dispatching office to remove the restriction.

### ***Equipment Based Speed Restrictions:***

Equipment based speed restrictions that result from an ARMS hit will be associated with a specific HST. Therefore, the ARMS Duty Officer must communicate this type of speed restriction to all three Dispatching offices. A TSRB addition or Form D must be used to deliver the speed restriction to all movements of the specified HST equipment.

Equipment based speed restrictions will also be forwarded by the ARMS Duty Officer to the Managers at each High Speed Rail Facility (Washington, New York, Boston). Once the involved HST equipment arrives at a High Speed Rail Facility, it will be inspected and repaired as necessary. Once the HST involved has been cleared for normal operation, the Manager of the High Speed Rail Facility where the inspection and/or repair took place will be responsible for contacting each Division's Dispatching office to remove the restriction.

## **7.12 ADMITTING ADDITIONAL EQUIPMENT INTO AN OUT-OF-SERVICE TRACK**

Operators and Dispatchers must personally confirm with the Foreman in charge of an out-of-service track any authorization for additional equipment to enter the track from a point controlled by the Operator or Dispatcher. This authorization must be confirmed before permission to pass a Stop Signal is given to the additional equipment to enter the out-of-service track.

## **8.0 ELECTRIC TRACTION**

### **8.1 REDUCED OPERATING SPEED ACCOUNT HIGH WINDS**

The following procedures govern the operation of electric trains on the Northeast Corridor during high wind conditions.

- 1. Sustained winds above 50 MPH, electric trains must not exceed 60 MPH.**
- 2. Sustained winds above 60 MPH, suspend all electric train operations.**  
An electric train en route will be allowed to proceed at a maximum speed of 60 MPH to the nearest terminal.

Dispatchers will issue Form D's or TSRB additions placing the above restrictions in effect when notified by the Division Engineer or his representative.

(Refer to AMT-2 Electrical Operating Instruction 2.109.)

## **9.0 BRIDGES AND BUILDINGS**

### **9.1 MOVABLE BRIDGES: REMOVAL FROM SERVICE FOR RIVER TRAFFIC**

To avoid Coast Guard violation notices and fines for the inability to open movable bridges to river traffic, Dispatchers must ensure that the Coast Guard is promptly notified:

1. Prior to the performance of vital maintenance on a movable bridge that cannot be delayed, or
2. When an emergency situation prevents a bridge from opening. Such emergency situations may include a signal power failure, damage to the bridge structure, or any other failure that would prevent a bridge from opening. Coast Guard notification must include the reason for the bridge failure, and an expected completion date and time for necessary repairs.

A log item must be prepared each time a movable bridge is removed from service for river traffic, and must include:

1. Who took the bridge out of service, and for what reason, and
2. Who at the Coast Guard was notified, and at what time.

A log item must also be prepared when the bridge is restored to service for river traffic, showing the time and date of such restoration, and who at the Coast Guard was notified of the restoration.

### **9.2 MOVABLE BRIDGE INSTRUCTION FOR UNUSUAL CONDITIONS**

Dispatchers must take the following actions if any unusual vibration, unusual or loud noise, resistance to swing or any other refusal to properly operate occur during movable bridge operation:

- Place hold on the affected track(s) immediately.
- Notify the Engineering Department.
- Maintain hold on the affected track(s) until bridge is inspected (repaired) by a qualified employee.

***This procedure must be followed even when it is possible to display a signal over the bridge.***



### 9.3 UNDERGRADE BRIDGE STRIKE NOTIFICATION AND REPORTING PROCEDURES

The following procedures are supplemental to Special Instruction 132-S1, which applies to the operation of trains over an undergrade bridge that has been struck by a vehicle or vessel.

1. When a report of an undergrade bridge strike is received, the Dispatcher must promptly notify the Assistant Chief.
2. The Assistant Chief must promptly notify:
  - a) Trouble Desk (Radio Room on MBTA)
  - b) Amtrak Police (MBTA Police on MBTA)
  - c) Coast Guard, if the bridge is over a waterway. The report should include name of vessel (if known), time of incident, brief description of damage, and whether channel appears to be blocked.
  - d) Consolidated National Operations Center (or MBTA Operations)
  - e) District Claims Office
3. The Assistant Chief must compose a Division Log Item that includes:
  - a) Name and location of bridge
  - b) Time bridge strike was reported
  - c) Resultant train delays (train ID and minutes of delay)
  - d) Time bridge was OK'd for normal speed
  - e) Name of individual reporting bridge strike
  - f) Identification of the vehicle operator (name, address, etc.)
4. The Assistant Chief must **fax** a copy of the Division Log Item to the appropriate Regional Claims Office as follows:  
For incidents south of Trenton, NJ: ATS 728-1006 - Philadelphia, PA Regional Office  
For incidents north of Trenton, NJ: ATS 521-6203 - New York, NY Regional Office

## **10.0 EMERGENCY PROCEDURES**

### **10.1 HAZARDOUS MATERIAL PROCEDURES**

When an incident involving hazardous materials occurs, the Division Environmental Manager and the on-duty Transportation Supervisor must be advised immediately, assume responsibility for railroad operations, coordinate with government agencies, and provide assistance and support as required.

The Transportation Supervisor will have overall authority at the scene for all decisions affecting railroad operations. The Division Environmental Manager will coordinate with outside agencies and will advise and assist the Division Environmental Analyst. The Division Environmental Manager will also provide written notification to the necessary Federal and State agencies, and Corporate Environmental Control Staff, using the Pollution Incident Report Form.

Corporate Safety and Environmental Control will provide additional technical support and back up as needed.

The following employees will be issued a copy of the Hazardous Materials Instructions used by NS, CSX and Conrail, and the DOT Emergency Response Guide, and shall keep their copy up-to-date copy and available while on duty:

1. Dispatchers and Assistant Chiefs
2. Transportation Managers and Supervisors
3. Amtrak Police Supervisors
4. Division Environmental Manager
5. Division Field Environmental Specialist

In the event of a derailment, fire, leakage, or other accident involving the potential or actual release of a hazardous material, (except for PCB spills which are covered by a separate instruction), the Chief or Assistant Chief must ascertain by the fastest available means:

1. Car initial(s) and numbers)
2. Location in train
3. Type of placard(s) applied
4. Name of substance(s) involved

Decisions regarding train movements through an area where a hazardous material problem exists, whether potential or actual, must initially be based, until such time as contact is made with supervision or other authority at the scene, on information provided by crew members or other employees, and must take into account the extent of the problem, the substance involved, and local conditions at the scene. As always, safety must be the first and foremost consideration.

Initial notification by the Chief or Assistant Chief will be as follows:

1. Division Superintendent of Operations
2. Division Environmental Analyst
3. Division Environmental Manager
4. Amtrak Police (who will notify local fire and police units)
5. Chemtrec — Be prepared to provide the following:
  - a) Your name, position, phone number
  - b) Nature and location of the problem
  - c) Name of substance involved\*
  - d) Shipper or manufacturer
  - e) Type of Car
  - f) Carrier name
  - g) Consignee
  - h) Local conditions
6. Bureau of Explosives — District Inspector and Washington Office
7. Amtrak Operations Office
8. Federal Department of Transportation
9. State PUC or DOT as required
10. State EPA
11. National Response Center (800-424-8802) or (202-267-2675 in Washington, DC)

Chemtrec will be able to advise on the initial precautions to be taken. They will also arrange to notify and dispatch a representative of the shipper where required.

To further assist you in responding in an efficient and proper manner to Hazardous Material Incidents, refer to the Emergency Response Guide Book for Hazardous Material issued by the Department of Transportation. Note the importance of the "Guide Numbers" and "ID Numbers", since these are to be matched with the numbers used on the train consists and hazardous material messages.

The following are phone numbers of various agencies to be notified in the event of hazardous material incidents.

**All Divisions:**

Chemtrec — (800) 424-9300

Bureau of Explosives — (202) 639-2222

**Northeast Division - Boston Train Dispatching Office:**

New England EPA — (617) 918-1111

Connecticut State EPA — (860) 424-3000

Connecticut DOT — (860) 594-2650

Rhode Island State EPA — (401) 222-6800

Rhode Island Division of Water Resources — (401) 222-3961

Rhode Island PUC — (401) 222-3500

Massachusetts State EPA — (413) 784-1100 (day) or (617) 292-5500 (nights & holidays)

### **Northeast Division - New York Train Dispatching Office:**

New York State Dept of Environmental Conservation:

(800) 457-7362 (Outside New York) (518) 457-7362 (Inside New York)

New York DOT — (212) 442-7070

New Jersey State EPA — (609) 292-5560 (day) *or* (609) 292-7172 (nights & holidays)

Pennsylvania State DEP — (800) 541-2050

Pennsylvania PUC — (717) 783-1740

### **Mid-Atlantic Division:**

Pennsylvania State DEP — (800) 541-2050

Pennsylvania PUC — (717) 783-1740

New Jersey State EPA — (609) 292-5560 (day) *or* (609) 292-7172 (nights & holidays)

Delaware State Dept. of Natural Resources — (302) 739-5072

Maryland Dept. of Environment — (410) 631-3400 (day) *or* (410) 974-3551 (nights & holidays)

Maryland Dept. of Labor & Industry — (410) 767-2052

## **10.2 PCB SPILLS**

Notification of spills must include the following:

1. Appropriate Division Superintendent of Operations, Division Engineer, Division Environmental Manager, Manager Maintenance Facility.
2. Appropriate Public Utility Commission of state involved.
3. National Response Center.
4. Federal EPA.
5. State EPA.
6. Federal Railroad Administration.
7. If commuter equipment is involved, notify the appropriate Commuter agency.

## **10.3 DERAILEMENTS: NOTIFICATION OF SAFETY DEPARTMENT**

Notify the Safety Department on all derailments.

## **10.4 ACCIDENT REPORTING**

The NTSB/FRA must be notified as soon as is practicable at 1-800-424-0201, *or* 202-267-2675 in Washington, DC, subsequent to an accident or incident that results in any of the following:

1. Death of rail passenger or employee.
2. Injury of 2 or more passengers or employees which requires admission to a hospital.
3. Death or injury of 5 or more persons.
4. Damage of \$150,000 or more to property (railroad and non-railroad).
5. Damage of \$25,000 or more to passenger train and non-railroad property requiring evacuation of train.
6. Tank car damage resulting in hazardous material release, or causing evacuation of general public.
7. Fatality at a grade crossing.

8. Evacuation of a passenger train.  
Be prepared to supply the following information when calling:

1. Name of railroad.
2. Name, title, and telephone number of reporting individual.
3. Time, date, and location of accident or incident.
4. Circumstances of accident.
5. Number of persons killed or injured.
6. Estimate of property damage.
7. Name and telephone number of person from whom additional information can be obtained.

## **10.5 GRADE CROSSING ACCIDENTS: CONSOLIDATED NATIONAL OPERATIONS CENTER**

Promptly notify the Amtrak Consolidated National Operations Center (ATS 734-2308) on all grade crossing accidents.

Initial information must include:

1. Name of Railroad on which accident occurred.
2. Time and date of accident.
3. Train number and consist.
4. Location — nearest town and name of crossing.
5. Brief description of accident, including type of vehicle, and whether injuries or fatalities are involved.
6. Name of the Service Manager or Maintenance Facility Manager that was contacted for preliminary documentation of damage, download of event recorder, and photographs of damage.

Follow-up information must include:

1. Name of responding local sheriff and emergency personnel.
2. Name of contact railroad official (i.e. Trainmaster) interviewing crew members and obtaining Conductor's Report of Accident.
3. Name of contact railroad Police Officer or Claim Agent handling accident.

## **10.6 AMTRAK COLLISIONS OR DERAILMENTS ON FOREIGN RAILROADS**

When notified of an Amtrak train collision or derailment on a foreign railroad, notify the Transportation Manager or Supervisor in charge of the territory or train.

Prepare a log entry by contacting the appropriate foreign railroad Movement Office for information. Include pertinent information received from Amtrak personnel in the field.

## **10.7 TRAIN STRIKING DEBRIS**

Take the following actions if a crew reports that their train struck debris or sustained damage to its train line, air hose, brake pipe, etc.:

1. Ascertain the kind of debris struck, if possible.
2. Notify the Police Department and Trouble Desk (MW Department).
3. Advise all approaching trains of the situation.
4. Follow-up with Police and Trouble Desk of debris found, if any.

Prepare a complete log item including all of the above information, and results of your follow-up.

#### **10.8 DISABLED TRAINS: NO ROAD FOREMAN OR ROAD TRAINMASTER IN AREA**

Should a passenger train become disabled in an area where there is no Road Foreman or Road Trainmaster on duty, the Assistant Chief must notify, at home, the Road Foreman and Road Trainmaster living nearest the disabled train.

#### **10.9 TRESPASSERS ON OR NEAR THE TRACKS**

Dispatchers must take the following actions when responding to a report of trespassers on or near the tracks:

1. Immediately report the occurrence to the Amtrak police.
2. Notify approaching trains that there has been a report of trespassers on or near the tracks at or between [location(s)], and to report what they have seen after operating through the area.

If an Engineer requests guidance on how to operate through the area, advise him to ensure that his headlight is on bright, and that he is prepared to sound his horn if he sees anyone on or near the tracks.

If circumstances warrant instructing trains to be prepared to stop (e.g., a report of someone lying in the gauge of the track), issue a Form D or TSRB addition to instruct trains to operate through the affected area at **Restricted Speed**.

3. Continue to notify trains of the condition until a report is received that the area is clear.
4. Document the incident, including notifications and follow-up.

If advised of a "close call" involving a person almost struck by a train, it is imperative that proper notification, documentation, and follow-up be made.

#### **10.10 TRESPASSER STRIKES / FATALITIES**

When a train strikes a trespasser, or believes that a trespasser may have been struck, the following procedure will apply regardless as to the severity of the injury:

1. The train must be promptly stopped and the precise location of the strike and location of the train must be reported.
2. The Assistant Chief Dispatcher will notify the Amtrak Police, General Superintendent, Superintendent Operations, Assistant Superintendent Road Operations, Road Foreman on duty, Passenger Services Manager, Division Engineer, C&S Trouble Desk, and CNOC.
3. The Conductor is in charge until an Incident Commander (Amtrak Manager) arrives at the scene. The train must be inspected by a crew member. Additionally, other crew members should be dispatched to the impact area, if operationally feasible and safe to do so, to render assistance, if required, to the

injured. A crew member from another passing train may be used to drop off at the impact area if it would be more expeditious to do so.

4. The train and the locomotive engineer must not be released from the scene until authorized by either the Amtrak Police Department or local officials such as the Police Department or Coroner's Office.
  5. If the crew reports that the body or body parts are fouling other tracks other than the track that the incident train is occupying, a hold must be placed on affected tracks until released by the APD or local police.
  6. Tracks that are reported being clear may be operated on unless use of same is prohibited by police or Amtrak supervision in the field. When possible, Engineering Department gang watchmen will be dispatched to provide emergency responders additional protection.
  7. A transfer of passengers off the incident train should be made as soon as possible as long as it is safe to do so and operationally feasible.
  8. Once the incident train has been released by the police it should not be dispatched from the scene unless:
    - a). Supervision in the field has interviewed the locomotive engineer and reported that the engineer is capable of operating the train.
- OR
- b). A relief locomotive engineer has been assigned to the train.
9. Statements must be obtained from locomotive engineer and other crew members or witnesses, when applicable. While an initial statement of the locomotive engineer must be taken by local authorities at the scene, a more detailed statement may be taken at a later time.
  10. A division log item must be entered noting all relevant information and parties contacted. The Amtrak Police notification must include the time of notification as well as the officer notified.
  11. The Assistant Chief Dispatcher must verify that the Mechanical desk in CNOC will arrange to have a download of the locomotive and will forward the download report to Claims Department.

#### **10.11 REPORTING PROCEDURES FOR INJURIES OF AMTRAK EMPLOYEES**

The policy for reporting injuries is as follows:

1. Employee injured will immediately arrange to notify his/her immediate supervisor.
2. The Supervisor will fill out Form No. 260 and notify the Safety Department. If unable to reach the Safety Department, the Movement Office will be notified, and Form No. 260 will be relayed and documented.
3. Once notified of an injury, the Movement Office must contact Safety Department personnel.

Whenever an employee is injured while on duty, or when off duty and still on company property, the employee's supervisor must be notified immediately so that an investigation of the circumstances can be made. If equipment or property are the cause of the injury, inspection and repairs must be arranged. Where medical treatment is required, it must always be attended to first.

Assistant Chiefs are to notify the appropriate department's supervision of the incident. Where serious injury is involved, the Safety Officer and Claim Agent must also be involved. If unable to contact the above, contact the appropriate Division Superintendent of Operations.

## 10.12 STOP SIGNAL VIOLATIONS

Whenever it becomes known or suspected that there has been a Stop Signal violation, arrangements must be made to promptly stop the equipment. Thereafter, the equipment not be moved until:

1. Supervision has arrived at the scene and is in control of the situation,
- or
2. Supervision has been fully apprised of the situation and existing conditions, and specifically authorizes the movement.

If another railroad's train passes a Stop Signal, the train can be released after an Amtrak or home railroad supervisor arrives and takes control of the situation.

## 10.13 TRAIN PARTINGS

### Operating On Affected Track Subsequent To Train Parting

When a train parting has occurred, and it becomes necessary to operate trains over the affected trackage before MW personnel can perform an inspection, the Train Dispatcher must follow these procedures:

1. Issue a Form D, or a TSRB addition, to the first train operating over the trackage where the train parting occurred, requiring movement at Restricted Speed through the affected area.
2. If the first train operating over the track where the train parting occurred reports nothing unusual, subsequent trains may be authorized to operate through the area not exceeding 30 MPH, until MW personnel have inspected the track.

**\*\*\*Exception:** *If any run-in contact occurs between the parted sections of the train (i.e., the rear section runs into the front section), a hold must be placed on the track until MW personnel have inspected the track.*

### Partings of Passenger Trains

Partings of **passenger trains** are to be investigated for cause in the same manner as we investigate derailments. A committee comprised of Transportation, Engineering and Mechanical representatives is to be formed to develop the cause.

Care must be exercised to minimize delay to the train. If the cause is not apparent at the time of the occurrence and the train is safe to move, the train may proceed to its final terminal where



a thorough inspection will be performed. The committee, however, will not be disbanded until a cause is developed and accepted by the appropriate Division Superintendent of Operations.

#### **10.14 WEATHER EMERGENCY PROGRAM**

"Weatheradio Alert" units are located at the following locations:

**Mid-Atlantic Division:**

State Interlocking Station

**Northeast Division (New York):**

Chief's Office, NY

Union Interlocking Station

**Northeast Division (Boston):**

Chief's Office, Boston

These units will operate from an AC power source. Each unit is also equipped with a 9 volt battery back up. Should the AC power source fail, the unit will automatically switch to battery operation. On the bottom of each unit there are three separate switches which will be set to the proper position when installed:

1. Three Position Channel Selector Switch — will be set to the channel providing maximum range for each location.
2. Antenna Switch — will normally be set to "Line" position. If the quality of reception is inadequate at a particular location with the antenna switch set to "Line", set the switch to "Rod" position and fully extend the antenna on the top rear of unit.
3. Alert Lock Switch — The alert lock switch has been internally modified so that the alert lock feature is always "on." This will cause the siren alarm, when actuated, to sound continuously until the weather bar is depressed.

On the face of each unit is a red LED indicating light and three operating bars:

1. Test Bar — Located on left side of unit. When depressed, it will cause a siren alarm to sound continuously until the Weather Bar is depressed.
2. Weather Bar — Located in center of unit. When depressed, the unit will broadcast the National Weather forecast for the channel area. Depressing the weather bar will also silence siren the alarm, if it is sounding.
3. Alert Bar — Located on right side of unit. Depressing the Alert Bar will cancel the broadcast and return the unit to standby status.

An operating instruction booklet is provided with each unit and is to be kept available at each location where a unit is installed.

When the National Weather Service issues a **Weather Emergency**, a special electronic triggering signal will be sent causing the LED light to flash and the siren alarm to sound. The LED light will continue to flash and the alarm will continue to sound until the Weather Bar is depressed. After depressing the weather bar and receiving the emergency message, the unit may be returned to stand-by by depressing the alert bar.

If a Weather Emergency broadcast is received at any location, the following instructions will apply:

1. The location receiving an emergency broadcast must immediately notify the Assistant Chief on duty, providing the content of the emergency message.
2. The Assistant Chief will personally notify the Division Superintendent of Operations, the Division Engineer, and the Consolidated National Operations Center.
3. The Division Engineer or his representative will be responsible for taking such steps as he deems warranted by conditions.

## **10.15 BOMB THREATS AND CODES**

The following guidelines and procedures have been established to assist the Amtrak Police and other employees when responding to a bomb threat involving Amtrak's "right of way," an Amtrak train, a station or facility.

The term "bomb threat" shall include threats or notice that an incendiary or explosive device has been or may be placed on Amtrak's "right of way," on a train, in a station or facility.

The following codes are to be used to assist the police in responding to bomb threats.

**Code 1000** The Non-Specific Threat - The most common bomb threat is classified as non-specific. A non-specific threat is when a caller or letter merely states there is a bomb on a train or in a station, but gives no specific details (e.g., a threat made against a train without identifying either the train name, number, time or location; or a threat involving a station, facility, tunnel or bridge without a specific name or location).

**Code 2000** The Specific Threat - A specific threat is when a caller or letter provides a combination of specific information about the bomb (e.g., a specific train number, a specific station and or location in the station, such as the baggage room, specific luggage or baggage item, a particular time the device is to be detonated and/or a specific reason for placing the bomb).

**Code 3000** A device or a suspected device has been discovered. Commonly, the discovery of a device or suspected device warrants a partial or full evacuation of the train or facility.

### **Unattended Item/Package**

An unattended item or package is any object or package which is not accounted for and is foreign to employees of the train/facility and/or guests.

## **DISPATCHER'S RESPONSIBILITY**

1. Dispatchers having received notification of a bomb threat from a train crew must notify the Assistant Chief Dispatcher.

The Assistant Chief will notify the Amtrak police, the Division Road Foreman, the Road Foreman on duty, and the Consolidated National Operations Center.

The Dispatcher will follow the instructions of the Amtrak police and relay information between the train crew and the police, if necessary.

2. Dispatchers receiving direct bomb threats via telephone should:
  - A. Attempt to get the Assistant Chief or another Dispatcher to listen in on the conversation.
  - B. Write down as much of the conversation as possible.
  - C. Try to get the caller to be as specific as possible.
  - D. Listen carefully to:
    1. Try to detect any background noises that may help identify the location of the caller.
    2. Try to determine any distinguishing characteristics about the callers voice or accent.
  - E. Notify the train crew if a train is involved using the appropriate code.
  - F. Notify the Amtrak Police, the Division Road Foreman, the Road Foreman on duty, and the Consolidated National Operations Center.
3. Dispatchers receiving bomb threat information involving a train from the Amtrak police, will notify the train crew govern by the instructions of the police.

***Quick Reference Cards for Handling Bomb Threats*** printed for T&E and station personnel will be available to Train Dispatchers.

### **10.16 CODE BLACK:**

#### **INITIAL RESPONSE TO A CONFIRMED DETONATION OF AN EXPLOSIVE DEVICE**

In the application of Special Instruction F-S2, in the event of the detonation of an explosive device on an Amtrak train, facility, or other infrastructure "Code Black" will apply.

When an NEC Dispatching Office receives "Code BLACK" information:

1. The CETC Dispatcher will notify the CETC Assistant Chief Dispatcher.
2. The Assistant Chief Dispatcher will instruct all Dispatchers to instruct trains to come to a safe stop, clear of tunnels, bridges and rail stations<sup>1</sup> (when practicable).
3. The CETC Assistant Chief Dispatcher will then contact the other NEC dispatching offices, the National Communications Center, the Consolidated National Operations Center (CNOC), and connecting foreign carriers.

4. The National Communications Center will notify the proper 9-1-1 center to have help respond. CNOC will advise the Dispatching Office as to if and where to evacuate other trains.

<sup>1</sup> It is permissible to stop trains in areas adjacent to open/unsheltered commuter platform areas.

## 11.0 EQUIPMENT AND ENGINE DEFECTS

### 11.1 ON-BOARD HOT JOURNAL BEARING DETECTION SYSTEM - AMFLEET CARS

#### AMT-3 Instruction 1.1.1 Amfleet On-Board Hot Bearing Detection System

A. Amfleet cars are equipped with an On-Board Hot Bearing Detection (OBHBD) system, which is designed to give the crew an audible and visual alarm if the system detects an overheated journal bearing. The system operates with the following components:

1. Journal bearing heat sensor probes that are mounted on each of the car's bearings, and connected by cables to a Main Indicator Panel.
2. Trainline connection to enable equipped locomotives to indicate when a hot bearing or problem with the detection system is detected.
3. An alarm panel that is located above the electric locker door. This panel contains a red alarm light and an audible alarm device.
4. Main Indicator Panel (black box) is located on the wall inside the electric locker.

Under normal conditions, the only light that is illuminated is the "SYSTEM READY" light.

#### B. Actions Employees Must Take In Response To All Alarms

1. Stop the train as soon as safe handling will permit.
2. Open the electric locker door on the car with the alarm actuation.
3. Press the "ALARM RESET" button to silence the audible alarm in the car. This will also extinguish the "Hot Journal" warning light on the locomotive.
4. Look at the detector's Main Indicator Panel to determine which alarm light is illuminated (e.g., Wheel 5 Sensor Failure light).
5. Record alarm light information on MAP 21A form, indicating specific location and car number, then verbally report it to the Dispatcher and CNOC mechanical desk at 1-800-424-0217.
6. Take the specific actions listed below, based on the alarm light type.

**NOTE:** Before going under equipment to inspect bearings, employees obtain "Three Point Protection". Employees must ensure that they **apply TempilStik to proper location** on roller bearing adaptor or seal, as illustrated in the "TempilStik Application" diagram.

7. Notify the Dispatcher and the Engineer of the results of any inspections.
8. When an alarm occurs before a crew change location, the incoming crew must be advised of any alarm light that remains illuminated, any speed restriction that is in effect, and whether a mechanical inspection is required. If the outgoing crew cannot personally give this information to the incoming crew, they must ask the Dispatcher to relay it.

#### C. Actions Employees Must Take Based On Alarm Light Type

##### 1. Red "Hot Bearing" Alarm Light:

- a. Inspect all bearings on the affected truck with a 219 degree TempilStik, starting with the bearing that actuated the alarm.

- b. Take the following additional actions while performing bearing inspections:
  - (1) Look for signs of a hot bearing smoke bomb actuation (i.e., violet colored smoke or dye, and rotten egg smell).
  - (2) Look for damage to the heat sensor probe cable that is connected to the bearing, and to the wiring that runs from the heat sensor probe cable to the car body.
  - (3) Hand tighten the connectors on the heat sensor probe cable, and the connector on the Main Indicator Panel located in the electric locker.
- c. **When tempilstick melts**, indicating a hot or failed journal bearing, comply with the following:
  - (1) QP or QMP must visually inspect equipment.
  - (2) Train must not move until QMP determines if safe for movement.
  - (3) If communication with QMP not immediately available, contact QMP at CNOC mechanical desk at 1-800-424-0217.
  - (4) QMP will determine whether car is to be setout, maximum speed and any other restrictions necessary for safe movement.
- d. If no hot bearing is found, try to reset the detector by pressing the "SYSTEM RESET" button on the Main Indicator Panel.
- e. If the red "Hot Bearing" alarm light goes out, proceed at NORMAL SPEED. Defect must be recorded on MAP 21A , noting location and car number.
  - (1) If a red "Hot Bearing" alarm light comes on again at the same bearing location, reduce train speed to not exceeding 80 MPH to the next location where mechanical forces are available to inspect car.
  - (2) If at this mechanical inspection location, mechanical forces determine there is no hot bearing, and that the On-Board Hot Bearing Detection (OBHBD) system is defective, train may proceed at NORMAL SPEED.
  - (3) If mechanical forces determine that bearing is hot, train will be terminated.
- f. If the red "Hot Bearing" alarm light remains illuminated after pressing the "SYSTEM RESET" button on the Main Indicator Panel:
  - (1) Proceed not exceeding 80 MPH to the next location where mechanical forces are available to inspect the car.
  - (2) If at this mechanical inspection location, mechanical forces determine there is no hot bearing, and that the On-Board Hot Bearing Detection (OBHBD) system is defective, train may proceed at NORMAL SPEED.
  - (3) If mechanical forces determine that bearing is hot, train will be terminated.
- g. When a "Hot Bearing" alarm occurs before a crew change location, the incoming crew must be advised of any alarm light that remains illuminated, any speed restriction that is in effect, and whether a

mechanical inspection is required. If the outgoing crew cannot personally give this information to the incoming crew, they must ask the Dispatcher to relay it.

2. **Yellow "Sensor Failure" Alarm Light:**

- a. Proceed at NORMAL SPEED. The Main Indicator Panel displays a yellow "Sensor Failure" alarm light when an electrical fault is detected, such as a loose connection in the detector wiring, or a shorted or grounded sensor probe. Since yellow "Sensor Failure" alarms do not indicate that there is a hot bearing, all cars have been modified so that a yellow "Sensor Failure" alarm will not actuate the audible and visual alarm outside the car's electric locker door, or the red "Hot Journal" light on equipped engines. The yellow "Sensor Failure" light is simply an indication that the OBHBD system needs to be repaired.
- b. Crew members discovering an illuminated yellow "Sensor Failure" alarm light must notify the Dispatcher Engineer and CNOC mechanical desk at 1-800-424-0217 of the defect, and record it on MAP 21A , indicating specific location and car number.

3. **Yellow "Warning System Failure" Alarm Light:**

- a. Check for a problem with the detector's computer system by pressing the "SYSTEM RESET" button (bottom center).
- b. If the "WARNING SYSTEM FAILURE" light goes out, proceed at NORMAL SPEED.
- c. If "WARNING SYSTEM FAILURE" light remains illuminated, proceed not exceeding 80 MPH to the next location where mechanical forces are available to repair the detector.
- d. If mechanical forces cannot repair the detector, proceed not exceeding 80 MPH to the final terminal.
- e. Crew members discovering an illuminated "Warning System Failure" alarm light must notify the Dispatcher, Engineer and CNOC mechanical desk at 1-800-424-0217 of the defect, and record it on MAP 21A , indicating location and car number.

4. **No Lights Illuminated on Main Indicator Panel:**

- a. The following instructions apply when an OBHBD alarm actuation has occurred on the alarm panel outside the electric locker door, and no lights are illuminated on the Main Indicator Panel inside the electric locker.

**NOTE: If no OBHBD alarm has occurred, and the Main Indicator Panel is dark simply because of an HEP failure or loss of DC power on a specific car, the train may proceed at NORMAL SPEED.**

- b. Check for a circuit breaker trip on the detector by pressing the "PUSH TO RESET" button. (bottom left corner)
- c. If the green "SYSTEM READY" light illuminates, check all lamps by pressing the "LAMP TEST" button. If no sensor or bearing lights illuminate, proceed at NORMAL SPEED.

- d. If the "SYSTEM READY" light remains out, check all lamps by pressing the "LAMP TEST" button:
  - (1) If all lamps illuminate except the "SYSTEM READY", proceed at NORMAL SPEED.
  - (2) If all lamps illuminate except the "SYSTEM READY" light and one of the hot bearing lights, follow the instructions for a Red "Hot Bearing" alarm light.
  - (3) If all lamps illuminate except the "SYSTEM READY" light and one of the sensor failure lights, follow the instructions in 1.1.1C.2.
  - (4) If NO lamps illuminate, proceed not exceeding 80 MPH to the next location where mechanical forces are available to repair the detector. If mechanical forces cannot repair the detector, proceed not exceeding 80 MPH to the final terminal.
- e. Crew members discovering defective OBHBD lamp(s) must record the defect on MAP21A form, indicating location(s) and car number.

## **11.2 ON-BOARD HOT JOURNAL BEARING DETECTION SYSTEM- HIGH SPEED TRAINSET & HHP-8 LOCOMOTIVES**

Instructions for inspection and operation of HST's and HHP-8's that experience on-board hot journal actuations are located in Timetable Special Instructions 72-A3 and 72-A4, respectively.



### 11.3 FAILURE OF AIR BRAKES EN ROUTE

At least 85% of the cars in a train's consist must have functioning air brakes. Crews must contact CNOC and consult with QMP to determine that 85% brake will be maintained if necessary to cut out brakes on any locomotive or car. (Refer to AMT-3 Instruction P6.2.3 & NP6.2.3)

Should the air brakes on the last car become inoperative en route, the following procedures will apply: (Per AMT-3 Instruction P6.2.3G)

1. If the car is occupied, passengers must be moved to another car.
2. A crew member must be stationed at the hand brake location in that car.
3. The train must be proceed not exceeding 20 MPH to the next point where the car can be repaired, switched ahead of a car that has operative brakes, or set out.

The chart below depicts the maximum number of passenger cars with inoperative brakes that are permitted in a train to maintain the 85% operative brakes minimum:

NOTE: Car has inoperative brakes even if only one(1) truck is cut out.

Train Length	No. of Cars Permitted with Inoperative Brakes	Train Length	No. of Cars Permitted with Inoperative Brakes
6 cars or less	0	33 - 38 cars	5
7 - 12 cars	1	39 - 45 cars	6
13 - 19 cars	2	46 - 51 cars	7
20 - 25 cars	3	52 - 58 cars	8
26 - 32 cars	4		

NOTE: The numbers above do not include any locomotive(s) in train consist.

### 11.4 WEEKEND NOTIFICATION: MECHANICAL FAILURES

Assistant Chiefs must ensure that the weekend duty Mechanical Department representative is made aware of all mechanical failures.

### 11.5 DED ACTUATIONS

The procedure for dragger actuations is as follows:

1. Establish which train actuated the dragger.

2. Instruct the suspected train to come to a safe stop and examine the entire train.
3. Inform trains on adjacent tracks of the situation, and instruct them to sound their horn when approaching and passing the stopped train.
4. If there is reason to believe that adjacent track(s) might be fouled (e.g., train struck debris prior to actuating the dragger) instruct trains to pass at Restricted Speed.

## **11.6 EXAMINATION OF PASSENGER TRAINS FOR SMOKE/POSSIBLE HOT BOX**

When it is necessary to stop a passenger train because of a report of smoke coming from a car's trucks, the crew must be instructed to check the journal bearings of the suspected car with a 219° tempilstik.

## **11.7 TRACTION MOTOR FIRES**

When a locomotive is reported with traction motor problems related to a fire, the engine must be cut off. If there has been a traction motor fire, there is a strong possibility that the traction motor has "birdnested" which could result in a locked wheel. After a wheel has locked up, the locomotive must be set out.

The procedure for handling a locomotive that has been reported with a traction motor fire is as follows:

1. Cut the engine off and couple the protect.
2. If no protect engine is available and the possibility of annulling the train exists then it will become necessary to visually check the motor to ensure no birdnest exists. This is done through the traction motor inspection cover.

*NOTE:* A good indication that the motor is birdnested is when the string banding that laces the motor windings above the commutator has come apart and the windings are expanded away from the shaft.

## **11.8 EN ROUTE EQUIPMENT DAMAGE**

All Movement Offices are required to advise the end point division of damage sustained to equipment on their division. This assumes that no intermediate attention is required. If intermediate attention is required, they must notify the end point division and the division office at the first point where assistance could be provided.

## **12.0 EQUIPMENT AND ENGINE TROUBLESHOOTING GUIDE**

This section is to be used by Dispatchers when attempting, through questioning, to assist train and engine crews who are experiencing equipment or engine malfunctions.

### **12.1 AMFLEET CAR PROBLEMS AND SOLUTIONS**

#### **Damaged Main Reservoir Hose or Pipe**

Close main reservoir cock ahead of damaged car.

#### **Damaged Main Reservoir Tank on Car**

1. Close main reservoir cock ahead of damaged car.
2. Cut out control valve cut-out cock on damaged car.
3. Bleed each truck (cut-out brake cylinder).
4. Proceed with NO BRAKES on this car only.

#### **Over-inflated Bellows**

1. Close both "Air Spring Supply" cocks.
2. Open "Deflate Air Spring Valve" and leave open.

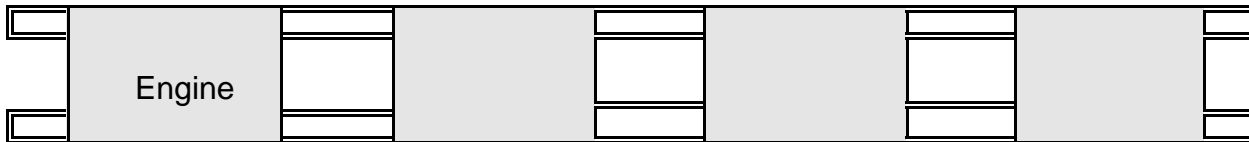
NOTE: If car is not equipped with "Deflate Air Spring Valve" — operate 15 MPH through crossovers and turnouts, 30 MPH for other movements (See Special Instructions 34-S1 and SI 37-S5.)

### **12.2 HEAD END POWER (H.E.P.) PROBLEMS**

The H.E.P supplies electricity to the train for lights, heat, and air conditioning. When a train experiences a loss of H.E.P. and the problem is not on the engine (e.g., the crew suspects there is a damaged or defective cable), it is possible to "short loop" anywhere ahead of the bad cable. Trains must not be dispatched from a maintenance yard with the 480 volt system "short looped". Short looping is permissible only when loss of trainline occurs after the train has left the yard. The condition must be repaired at the end point.

The Engineer can tell which side of his train line is inoperative. Once known, the fastest move is to short loop behind the engine on the side which is down. If the H.E.P. was lost while the train was in motion, the entire train should be examined to ensure that no cables are loose or hanging down before movement is resumed.

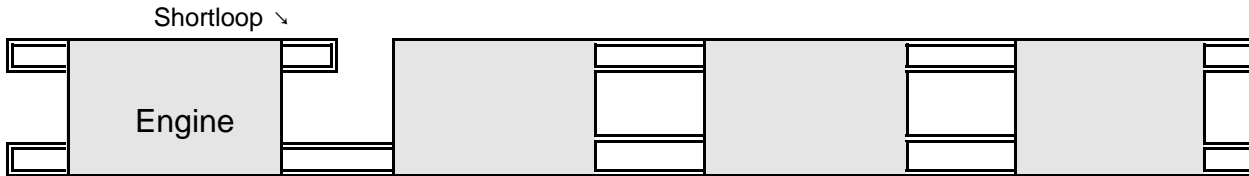
## NORMAL 480 VOLT CABLE SETUP



Four 480 volt cables between cars ↗

If the train line was incomplete on the right side, the **solution** would be:

## SHORT LOOP BEHIND ENGINE



If "short looping" does not resolve the problem, the problem may be on the engine. Check for damaged or loose cable(s) on lead end of engine. Also, check cable that is being used for the short loop. If unable to restore H.E.P., add a helper engine. The helper engine will supply the H.E.P., therefore, couple the brake pipe hose and 480 cables, road test the brakes, then proceed.

Depending on weather conditions and locations, at times it is a "better move" to allow the train to leave a station without H.E.P.

When train crews short loop a train en route, they must take the following actions:

1. Report the condition to the Consolidated National Operations Center (CNOC)(ATS 734-2307/2308 or 1-800-424-0217) at the first point of communication that will not delay the train (First point of communication is generally the Train Dispatcher). CNOC will notify en route facilities and the end point.
2. Report the condition to their relieving crew, if relieved en route.

If train is delayed, must log the incident in the Unusual Occurrences Log.

## **12.3 AEM-7 LOCOMOTIVE PROBLEMS AND POSSIBLE SOLUTIONS**

### **PCS (Pneumatic Control Switch) Penalty Fails to Reset and Brakes Won't Release**

Get helper engine into position to assist. Check non-operating cab, ensure that controls are properly set up for non-operating conditions, especially that the automatic brake valve is in "handle-off" position. Check S-7 panel and ensure that "ATC/Cab Signal" or Alerter is not tripped. If tripped, reset same. On the air rack, cut-out the TCCOC cock (Speed Control Cock). Cut out Alerter cut-out cock on air rack. Open battery switch on S-7 panel, wait 10 seconds, close. Raise pantograph. Change ends. If problem persists, add helper or change-off.

### **Auxiliary Power Off**

Switch over to H.E.P. convertor. (See page 5-1 and 5-2 of AEM-7 manual).

### **Alertor (Deadman Feature) Will Not Acknowledge**

Cut-out on air rack. Arrange to immediately position another employee with the Engineer. All trains with six (6) cars or less have a two man crew. If you take one away, make arrangements with Crew Dispatching to get help.

### **Depletion of Main Reservoir Pressure**

Check engine for leaks at tanks or pipes. If unable to plug, will need assist engine. Inspect train for leaks. If train, close cock ahead of problem.

### **Speed Pick-up Fault**

Cut out affected traction motor, inspect locomotive to ensure all wheels are turning.

### **Engine Live, but Not Taking Traction Power**

Try cutting out traction motors one at a time. If all else fails, reset battery switch.

### **Pressductor Fault**

Continue to run with power reduction maximum 1000 amps. At next station stop, reset battery switch, which may resolve problem.

If unable to resolve engine failure and after exhausting all possible solutions, open battery switch (on S-7 panel) and reset same. If not successful, add helper.

## **12.4 AEM-7 LOCOMOTIVE FAULT RESETTING SEQUENCE**

Ensure that the throttle is in the OFF ('0') position and the Reverser in the 'F', 'N', or 'R' position.

Check the Overhead Fault and Indication Panel to see what light or lights are lit. Report all fault indications on the Work Report (MAP 100).

Push the yellow Fault Reset button in the operating cab. If the fault light goes out, then the fault has reset.

*NOTE:* If certain lights remain lit, this is normal (e.g., Pressductor Fault light will automatically have an Auto Power Reduction light lit at the same time). In all cases, pushing the yellow Fault Reset in the cab will silence the alarm.

If the Fault Light remains lit, resetting must be performed in the machine room, by pressing the PROPULSION RESET BUTTON, (commonly referred to as the MAGIC BUTTON).

**NOTE:** Pay particular attention to the MCB OPEN indication. This indicates NO POWER, NO LINE VOLTAGE or PANTOGRAPH DOWN. If a traction motor fault cannot be reset, then cut out the affected traction motor. If it is an Auxiliary Convertor Fault which cannot be reset, then transfer to H.E.P.

If blower stopped is indicated, then push red and black buttons (Manual Motor Restarters) on the S-7 Panel to restart the blower motor. If a blower motor will not restart, then cut out the affected traction motor.

If H.E.P. Fault, push the H.E.P. Fault Reset button on the H.E.P. (Y-3) panel and the Propulsion Reset button. Then, push the Fault Reset button in the cab to cancel the yellow light.

If a H.E.P. OVERLOAD occurs and cannot be reset, have the Conductor cut off power to sufficient cars so that the H.E.P. does not overload.

On all faults that will not reset by pressing the MAGIC BUTTON and/or the H.E.P. Fault Reset, check the position of all circuit breakers on the S-7 Panel (all should be ON/UP). If a circuit breaker is found tripped, reset same and then push the applicable fault reset.

If unable to reset a fault which prevents the taking of power or closing the Main Circuit Breaker, then as a last resort, drop the pantograph, open the Battery Switch for approximately 45 seconds, close Battery Switch and raise the pantograph.

## **12.5 PROPER MULTIPLE OF AEM-7 LOCOMOTIVES**

If all connections are made there will be 10 hoses as follows: 480 Cable, 480 Cable, Application & Release, Main Reservoir Equalizing Line (AEM-7), Brake Pipe, Main Reservoir Supply Hose, Power Control (27 pt. jumper), Communication (27 pt. jumper), 480 Cable, and 480 Cable.

An AEM-7 MUST NEVER be used to power, protect, push, or rescue a freight train, work train or wire train.

## **12.6 F-40 LOCOMOTIVE FAULTS AND POSSIBLE SOLUTIONS**

### **Ground Relay**

Resets automatically up to three times; After the third time, the locomotive will no longer take traction power. This problem can be overcome by operating the Automatic Ground Relay RESET button. Each time this relay is reset, three more ground relay faults can occur before traction power will be automatically removed once again. The engineer can cut out individual traction motors in an effort to isolate the defective traction motor, and thereby prevent additional ground relay faults.

### **Crankcase Overpressure and Low Water Pressure Devices**

Buttons to reset these two locomotive protection devices are located in the engine room. Once the Crankcase Overpressure Device has tripped, it **must not** be reset, nor the engine

restarted. The Low Water Pressure device **may be reset**, and the engine restarted, provided a sufficient level of coolant water is indicated in the sight glass. If this device trips a second time after the engine is restarted, the engine **must not** be restarted again.

### **Overspeed Tripped**

This locomotive protection device may be reset from the engine room, and then the engine may be restarted.